

✓ 1. An ungrounded type flexible fabric container system with a reduced energy of electrostatic discharge for use in a combustible environment comprising: a woven fabric configured to form the flexible fabric container having side walls, a closed end and an open end; and

5 said woven fabric having an electrical resistivity to allow the flow of electricity through the fabric at a rate to discharge of below about one-hundred nanocoulombs per individual discharge with the fabric charged at greater than about negative ten thousand volts.

2. A system as in claim 1 wherein said woven fabric has an electrical resistivity to allow the flow of electricity through the fabric at a rate to discharge of between about four nanocoulombs to about fifteen nanocoulombs per individual discharge with the fabric charged at greater than about negative ten thousand volts.

3. A system as in claim 1 wherein said fabric includes a plurality of quasi-conductive fibers positioned preferably about one-half to about four inches apart from one another and having corona discharge points, said fibers being composed of materials and sized and shaped to effect corona discharge at said discharge points, and to have sufficient resistance to avoid incendiary discharge at its ends or along its length at a rate that results in incendiary type discharges in the combustible environment.

4. A system as in claim 3 wherein said quasi-conductive fibers are composed of multifilaments.

5. A system as in claim 4 wherein said fabric includes a coating of a compound having antistatic properties applied to cover a surface of said walls.

5 6. A system as in claim 5 wherein said quasi-conductive fibers are woven into the fabric container.

10 7. A system as in claim 6 wherein said quasi-conductive fibers are positioned preferably about one to about four inches apart from one another.

15 8. A system as in claim 7 wherein each said multifilament of said quasi-conductive fibers includes a relatively conductive core and a relatively insulating sheath.

20 9. A system as in claim 8 wherein said quasi-conductive fibers are sized and shaped to have a corona discharge threshold voltage at their ends in the range of about three to about four kilovolts and an end of a looped one of said sized and shaped quasi-conductive fibers has a corona discharge threshold voltage of about nine kilovolts.

25 10. A system as in claim 9 wherein the fabric container is a flexible intermediate bulk container.

30 *Sub A1* 11. A method for reducing the energy of electrostatic discharge in an ungrounded type flexible fabric container system for use in a combustible environment comprising the steps of:

providing a woven fabric configured to form the flexible fabric container having side walls, a closed end and an open end; and

adjusting the electrical resistivity of said woven fabric to allow the flow of electricity through the fabric at a rate to discharge of below about one-hundred nanocoulombs per individual discharge with the fabric charged at greater than about negative ten thousand volts.

12. A method as in claim 11 wherein said step of adjusting the electrical resistivity of said woven fabric allows the flow of electricity through the fabric at a rate to discharge of between about four nanocoulombs to about thirty nanocoulombs per individual discharge with the fabric charged at greater than about negative ten thousand volts.

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